U.S. Department of Education 2013 National Blue Ribbon Schools Program

A Public School - 13MA3

School Type (Public Schools):	Charter	Title 1	Magnet	Choice
Name of Principal: <u>Dr. Thoma</u>	s Gwin Ed.D.			
Official School Name: Winch	ester High Sch	<u>ool</u>		
	80 Skillings Ro Winchester, M.			
County: <u>Middlesex</u>	State School Co	ode Number*:	03440505	
Telephone: (781) 721-7020	E-mail: <u>tgwin</u>	@winchester.k	x12.ma.us	
Fax: (781) 721-7042	Web site/URL:	http://www.	winchester.k	12.ma.us
I have reviewed the informatio - Eligibility Certification), and				lity requirements on page 2 (Part 1
				Date
(Principal's Signature)				
Name of Superintendent*: Mr. wmcalduff@winchester.k12.m		<u>duff</u> Superin	itendent e-m	ail:
District Name: Winchester Pub	olic Schools D	istrict Phone:	(781) 721-70	<u>)04</u>
I have reviewed the informatio - Eligibility Certification), and			g the eligibi	lity requirements on page 2 (Part l
				Date
(Superintendent's Signature)				
Name of School Board Preside	nt/Chairperson	: Mr. Chris Lii	<u>nskey</u>	
I have reviewed the informatio - Eligibility Certification), and				lity requirements on page 2 (Part list accurate.
				Date
(School Board President's/Cha	irperson's Sign	ature)		

The original signed cover sheet only should be converted to a PDF file and emailed to Aba Kumi, Director, National Blue Ribbon Schools (Aba.Kumi@ed.gov) or mailed by expedited mail or a courier mail service (such as Express Mail, FedEx or UPS) to Aba Kumi, Director, National Blue Ribbon Schools Program, Office of Communications and Outreach, U.S. Department of Education, 400 Maryland Ave., SW, Room 5E103, Washington, DC 20202-8173.

^{*}Non-Public Schools: If the information requested is not applicable, write N/A in the space.

PART I - ELIGIBILITY CERTIFICATION

The signatures on the first page of this application certify that each of the statements below concerning the school's eligibility and compliance with U.S. Department of Education, Office for Civil Rights (OCR) requirements is true and correct.

- 1. The school configuration includes one or more of grades K-12. (Schools on the same campus with one principal, even K-12 schools, must apply as an entire school.)
- 2. The school has made Adequate Yearly Progress (AYP) or its equivalent each year for the past two years and has not been identified by the state as "persistently dangerous" within the last two years.
- 3. To meet final eligibility, the school must meet the state's AYP requirement or its equivalent in the 2012-2013 school year. Meeting AYP or its equivalent must be certified by the state. Any AYP status appeals must be resolved at least two weeks before the awards ceremony for the school to receive the award.
- 4. If the school includes grades 7 or higher, the school must have foreign language as a part of its curriculum and a significant number of students in grades 7 and higher must take foreign language courses.
- 5. The school has been in existence for five full years, that is, from at least September 2007 and each tested grade must have been part of the school for that period.
- 6. The nominated school has not received the Blue Ribbon Schools award in the past five years: 2008, 2009, 2010, 2011 or 2012.
- 7. The nominated school has no history of testing irregularities, nor have charges of irregularities been brought against the school at the time of nomination. The U.S. Department of Education reserves the right to disqualify a school's application and/or rescind a school's award if irregularities are later discovered and proven by the state.
- 8. The nominated school or district is not refusing Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district-wide compliance review.
- 9. The OCR has not issued a violation letter of findings to the school district concluding that the nominated school or the district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan from the district to remedy the violation.
- 10. The U.S. Department of Justice does not have a pending suit alleging that the nominated school or the school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
- 11. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school or school district in question; or if there are such findings, the state or district has corrected, or agreed to correct, the findings.

PART II - DEMOGRAPHIC DATA

All data are the most recent year available.

DISTRICT

- 1. Number of schools in the district 5 Elementary schools (includes K-8)

 1 Middle/Junior high schools

 1 High schools

 0 K-12 schools

 7 Total schools in district
- 2. District per-pupil expenditure: 11822

SCHOOL (To be completed by all schools)

- 3. Category that best describes the area where the school is located: <u>Suburban</u>
- 4. Number of years the principal has been in her/his position at this school: 10
- 5. Number of students as of October 1, 2012 enrolled at each grade level or its equivalent in applying school:

Grade	# of Males	# of Females	Grade Total
PreK	0	0	0
K	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	175	154	329
10	140	141	281
11	131	146	277
12	140	140	280
To	Total in Applying School: 1167		

6. Racial/ethnic composition of the school:	0 % American Indian or Alaska Native
	13 % Asian
	2 % Black or African American
	3 % Hispanic or Latino
	0 % Native Hawaiian or Other Pacific Islander
	79 % White
	3 % Two or more races
	100 % Total
•	

Only the seven standard categories should be used in reporting the racial/ethnic composition of your school. The final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic data to the U.S. Department of Education published in the October 19, 2007 *Federal Register* provides definitions for each of the seven categories.

7. Student turnover, or mobility rate, during the 2011-2012 school year: 2%
This rate is calculated using the grid below. The answer to (6) is the mobility rate.

Step	Description	Value
(1)	Number of students who transferred <i>to</i> the school after October 1, 2011 until the end of the school year.	11
(2)	Number of students who transferred <i>from</i> the school after October 1, 2011 until the end of the school year.	12
(3)	Total of all transferred students [sum of rows (1) and (2)].	23
(4)	Total number of students in the school as of October 1, 2011	1088
(5)	Total transferred students in row (3) divided by total students in row (4).	0.02
(6)	Amount in row (5) multiplied by 100.	2

8. Percent of English Language Learners in the school: 0%
Total number of ELL students in the school: 11
Number of non-English languages represented: 6
Specify non-English languages:

Arabic, Burmese, Cantonese, Haitian Creole, Mandarin, Portuguese

9. Percent of students eligible for free/reduced-priced meals:	7%
Total number of students who qualify:	87

If this method does not produce an accurate estimate of the percentage of students from low-income families, or the school does not participate in the free and reduced-priced school meals program, supply an accurate estimate and explain how the school calculated this estimate.

10. Percent of students receiving special education services:	11%
Total number of students served:	133

Indicate below the number of students with disabilities according to conditions designated in the Individuals with Disabilities Education Act. Do not add additional categories.

Orthopedic Impairment
51 Other Health Impaired
28 Specific Learning Disability
7 Speech or Language Impairment
15 Traumatic Brain Injury
0 Visual Impairment Including Blindness
0 Developmentally Delayed

11. Indicate number of full-time and part-time staff members in each of the categories below:

	Full-Time	Part-Time
Administrator(s)	3	0
Classroom teachers	61	21
Resource teachers/specialists (e.g., reading specialist, media specialist, art/music, PE teachers, etc.)	29	8
Paraprofessionals	9	0
Support staff (e.g., school secretaries, custodians, cafeteria aides, etc.)	15	10
Total number	117	39

12. Average school student-classroom teacher ratio, that is, the number of students in the school	
divided by the Full Time Equivalent of classroom teachers, e.g., 22:1:	

17:1

13. Show daily student attendance rates. Only high schools need to supply yearly graduation rates.

	2011-2012	2010-2011	2009-2010	2008-2009	2007-2008
Daily student attendance	95%	95%	96%	94%	95%
High school graduation rate	98%	95%	96%	97%	94%

14. For schools ending in grade 12 (high schools):

Show percentages to indicate the post-secondary status of students who graduated in Spring 2012.

	•
Graduating class size:	252
Enrolled in a 4-year college or university	88%
Enrolled in a community college	4%
Enrolled in vocational training	4%
Found employment	0%
Military service	0%
Other	4%
Total	100 %

15. Indicate whether your school has previously received a National Blue Ribbon Schools award:

0	No
	Yes

If yes, what was the year of the award?

PART III - SUMMARY

Winchester High School (WHS) is a public comprehensive four-year school, serving 1167 students located near the downtown center of Winchester, Massachusetts. Winchester is a small suburban commuter town with a population of 21,000, occupying 5.9 square miles northwest of Boston. The community strongly supports its schools, evaluates them continually, and cooperates fully in their advancement. With no major industrial or commercial businesses in town, the tax burden falls primarily on homeowners. With few exceptions, all students live in the town. Students who do not permanently reside in Winchester include students who are participating in the ABC (A Better Chance) program. ABC students are predominantly from inner urban cities. They attend WHS and live in the community during the school year. English is the language spoken by the majority of students, although the school has an active and significant ELL (English Language Learners) program for students of several nationalities.

The mission of Winchester High School is to provide for all of its students an opportunity to achieve excellence in learning, specifically to foster: critical thinking; clear and effective communication; intellectual creativity; a sense of personal, civic, and social responsibility; and the ability to apply these essential skills and knowledge to real world situations. The Winchester High School community prides itself on providing a diverse program to meet the needs of its students. The school's mission statement reflects its values and the importance of critical thinking, creativity, and effective communication. The school is proud of its many academic accomplishments and of its reputation within the community as a strong college preparatory school with high academic, social, and civic expectations for students.

WHS is, by every definition, high performing and consistently achieves a large measure of its excellence by all traditional indicators of performance. As one of the state's highest-performing high schools, WHS has a long history of academic excellence in which students perform exceptionally well in multiple venues. Scores are consistently high and continue to improve on both state and national standardized assessments. In addition, WHS has an outstanding reputation in the performing and visual arts, technology and engineering, service-learning, and athletics. Just in the past year, WHS has been named to the College Board's Advanced Placement Honor Roll (for significantly increasing the number of students taking AP exams while maintaining high performance), been designated by the Department of Elementary and Secondary Education (DESE) as a Commendation School (one of 15 high schools in the state), and been nominated as a National Blue Ribbon School (one of 3 high schools in the state). The school community believes that WHS deserves National Blue Ribbon Recognition because the DESE named WHS a Massachusetts Commendation School both for high achievement on the state's MCAS exams as well as the significant progress of its subgroups. Most schools gained Commendation status for one of three reasons- high achievement, high progress, or narrowing the achievement gap. WHS had two reasons. WHS is able to attain these achievements while maintaining a per pupil expenditure that is \$1400 below the state average

The outstanding faculty, a highly motivated and respectful student body, and supportive parents are rich assets for the high school. School spirit is strong, as evidenced by the large percentage of students who participate in team sports (approximate 70%), the high involvement of students in WHS's many extracurricular activities, and the many students involved in leadership and school government roles.

Not content to rest on its laurels, WHS implemented its multi-year *Focus on the Future* Strategic Plan in 2011. The school community recognized that in a rapidly changing world, WHS needed to make improvements to meet the challenge of providing a top quality education for all of its students and the skills and knowledge to succeed in the new global society. The strategic plan provides a roadmap that articulates key goals, specific action steps, and benchmarks that provide an emerging vision for change. The plan not only presents long term instructional, curricular, and facility goals, it immediately addressed concerns raised in surveys and focus groups. This year, the major goals of the strategic plan have been to implement the state's new educator evaluation system and develop common assessments to study student performance growth.

PART IV - INDICATORS OF ACADEMIC SUCCESS

1. Assessment Results:

A.

Winchester High School primarily uses the Massachusetts Comprehensive Assessment System (MCAS) as its primary standardized assessment, but also closely analyzes the results of the Scholastic Aptitude Tests (SATs) and the Advanced Placement exams (APs). AT WHS, the MCAS exams are given to 10th graders in English Language Arts (ELA) and Mathematics and to 9th graders in Science and Technology/Engineering. At WHS the science exam is Biology. Students have to pass all three exams in order to get their WHS diplomas.

The MCAS uses 4 kinds of questions: short answer (used only on the mathematics exams), multiple choice, open-response, and writing prompts. The MCAS scale ranges from 200 to 280 points. Here is the description of each of the four performance levels:

Advanced (260-280); Students at this level demonstrate a comprehensive and in-depth understanding of rigorous subject matter and provide sophisticated solutions to complex problems.

Proficient (240-259): Students at this level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems.

Needs Improvement (220-239): Students at this level demonstrate a partial understanding of subject matter and solve some simple problems.

Warning/Failing (200-219): Students at this level demonstrate a minimal understanding of subject matter and do not solve problems.

An Educational Proficiency Plan (EPP) must be developed in English Language Arts and/or Mathematics if the student does not score at least a minimum of 240 on the particular exam.

In English Language Arts and Mathematics, students also receive a Student Growth Percentile (SGP) score. For 10th graders, the SGP measures the academic change in the student relative to other students in the school with similar scores in the 8th grade MCAS exams (there is no 9th grade MCAS). Students growth percentile scores range from 1 to 99. Scores from 60-99 indicate higher growth; scores from 1-39 indicate lower growth; and scores from 40-59 indicate medium growth. This method works independently from of MCAS performance levels. No matter what scores students scored on the 8th grade MCAS exams, they have a chance to demonstrate growth up to 99 percentiles on the 10th grade MCAS. SGPs can be aggregated by subgroup, grade, school or district.

Finally, group MCAS results are used to form a group score called the **Composite Performance Index** (**CPI**). This is a 100 point index that combines the scores of students who take standard MCAS tests with the scores of those who take the MCAS-Alternate Assessment. It is a measure to which students are progressing toward proficiency in ELA and Mathematics. Thus it is the score that determines if WHS is making Annual Yearly Progress (AYP). Each student is assigned a CPI score based on the MCAS score. An Advanced or Proficient rating earns 100 points. A Needs Improvement High earns 50. A Needs Improvement Low earns 50. A Failing High earns 25 points and a Failing Low earns 0 points. The CPI scores are averaged together to determine a group score. Each year each group has targets to meet in order to make AYP.

WHS has strived to get 100% of its students to the Proficient level and is very close to that figure. WHS is also striving to get 85% of its students to the Advanced level. We have the same goal for our subgroups.

B.

Massachusetts implemented the MCAS exams in English Language Arts and Mathematics in 2001. Scores have continually improved each year over this twelve year period and have always been significantly above the state averages. In addition, WHS has exceed its AYP target each year for the school as a whole and its subgroups and the Student Growth Percentile has remained in the high growth area for ELA in the last 4 years, and has moved into the high growth area for Mathematics this past year. For a high school to have high achievement and high growth puts WHS in a very strong place academically.

English Language Arts

In English Language Arts, from 2001 to 2012, the combined percentage of students scoring Advanced plus Proficient has increased from 82% to 100%. The percentage of students scoring at the Advanced level has increased from 35% to 70%. Subgroup scores have also improved from 2008 to 2012. In the Free and Reduced Lunch/Socioeconomic Disadvantages subgroup, the combined percentage of students scoring Advanced plus Proficient has increased from 80% to 96%. The improvement for the Students with Disabilities subgroup has been even more dramatic, with the combined percentage of Advanced plus Proficient going from 57% in 2008 to 95% in 2012. In this sublevel, the percentage in the Advanced level increased from 12% to 41% over this time period. From 2011 to 2012 in the Students with Disabilities subgroups, the combined percentage of Advanced and Proficient went from 83% to 95% and the percentage of Advanced increased from 29 to 41%. The fact that 95% of the Students with Disabilities is in the Advanced plus Proficient category is remarkable.

At the same time in ELA, the median Student Growth Percentiles (SGPs) for all students ranged from 66 to 83%, figures that put WHS students in the high growth category. The Students with Disabilities subgroup has maintained a median SGP between 63 and 67% for 3 of the last four years.

In terms of Annual Yearly Progress, the ELA program for all students has matched or exceeded its CPI target every year. This was true for all subgroups also except for the Low Income status which was just under its target of 100%.

Mathematics

In Mathematics, from 2001 to 2012, the combined percentage of students scoring Advanced plus Proficient has increased from 81% to 98%. The percentage of students scoring at the Advanced level has increased from 42% to 81%. Subgroup scores have also improved from 2008 to 2012. In the Free and Reduced Lunch/Socioeconomic Disadvantages subgroup, the combined percentage of students scoring Advanced plus Proficient has dramatically increased from 50% to 96%. The improvement for the Students with Disabilities subgroup has been significant also, with the combined percentage of Advanced plus Proficient going from 61% in 2008 to 89% in 2012. In this sublevel, the percentage in the Advanced level increased from 26% to 49% over this time period. From 2011 to 2012 in the Students with Disabilities subgroups, the combined percentage of Advanced plus Proficient went from 69% to 89% and the percentage of Advanced increased from 29 to 49%.

At the same time in Mathematics, the median Student Growth Percentiles (SGPs) for all students increased from 43% to 61% from 2011-12. The Students with Disabilities subgroup's median SGP between jumped from 36% to 55%.

In terms of Annual Yearly Progress, the Mathematics program for all students has exceeded its CPI target every year. For all students, the actual CPI was 99.3 exceeding the target by 10.6 points. Both the CPI scores for the Low Income and Students with Disabilities far exceeded target. The Income group scored 97.7 with a target of 91.1. The Students with Disabilities group score 96.4 with a target of 90.1.

Other Standardized Tests

WHS also tracks and analyzes other standardized tests including Advanced Placement and Scholastic Aptitude Tests. At WHS from 2004 to 2012, the number of students taking at least one AP exam has increased from 87 students to 216 students. In this time period, the number of AP exams given has increased from 126 to 526. Even with the number of exams given, the percentage of scores of 3 or better has remained at about 83% over this nine year period.

The combined SAT average for the senior class has increased from 1745 in 2008 to 1802 in 2012. In the last 5 years, 104 WHS students have scored 800 on the SATII in mathematics.

2. Using Assessment Results:

Predominantly most of the assessment data analysis has occurred with results from the English Language Arts, Mathematics, and Biology MCAS exams. Assessment analysis has also taken place with other standardized test data, but this section will focus on analysis of MCAS results in English Language Arts and Mathematics.

The analysis begins with a more holistic view of the scores when we receive the initial results during the summer. Performance at the achievement levels, the Student Growth Percentiles (SPG), and the Composite Performance Index (CPI) are studied for the grade as a whole, then all of the subgroups. We study the results to ensure that WHS is meeting CPI targets and making AYP. From this initial analysis, we have always learned that grades as a whole and subgroups have continually improved. We also project the targets for the next 5 years. Because Massachusetts has been granted a waiver from certain NCLB requirements, the NCLB goal of 100% of students reaching proficiency by the end of the 2013-14 school year has been replaced with the goal of narrowing proficiency gaps by half by the end of the 2016-17 school year. The CPI will serve as the gauge of progress toward this goal. Instead of the former NCLB labels, all schools are now classified into one of five accountability and assistance labels. WHS has earned a Level 1 (the highest) status.

Next, teacher teams begin to drill down in the data. They begin to review the item analysis off the multiple choice and the open-response questions. Each test item is studied along with an examination of student answer results. In examining the test items and students answers, the teachers primarily consider the following:

- A gap or lack of consistency in the curriculum
- The item was taught but not by the time of the test.
- The item was taught but not at the level of sophistication the test demanded
- There was a problem with the vocabulary required to understand the question
- The wording of the question was ambiguous or tricky
- The text was written above grade level
- Was there an incorrect distracter answer that many students chose as correct?
- What student misconceptions might exist to cause students to choose that incorrect answer?

After the teacher teams analyze the test items and results, they look for patterns and trends among the grade as a whole and the subgroups. They then determine areas of strength and prioritize areas of improvement. Finally, the teams set goals for revising the curriculum and strategies for instruction, establish a plan, and make recommendations, if any, for district initiatives (resources, materials, staff development).

Finally, the teacher teams focus on individual students who have scored Failing, Needs Improvement, and Proficient (WHS would like to have everyone at Advanced). From the MCAS results, their areas of improvement are identified and their performance in high school math courses is reviewed. Teachers continue the review and reorganization of courses and strategies of instruction to meet the needs of these students. These students may be recommended for the MCAS Mathematics Prep Course or for English Language Arts MCAS tutoring. Based on the test analysis, the MCAS Math Prep Course and the English Language Arts tutoring might be restructured to meet the needs of the students.

MCAS Results presentations are made at both the district and school levels. In Massachusetts, parents/guardians and students receive a detailed report from the state on the test results. For those in the Failing or Needs Improvement category, WHS reaches out to parents and students to discuss results and the plans for improvement. In addition, parents and students are able to electronically access their scores and grades through an online portal.

3. Sharing Lessons Learned:

WHS administrators and faculty members are members of a variety of professional organizations throughout the state and attend and present at many related workshops and conferences. The principal has been the chair of the Department of Elementary and Secondary Education's (DESE) Global Education Advisory Committee for the last four years. As chair, he has addressed various groups on the importance of integrating global education into the curriculum and written recommendations to the DESE on improving global education in Massachusetts school districts. He is also president of the Middlesex League Principals organization. As president, he leads monthly meetings with the other 11 Middlesex League high school principals on various topics. This year the focus has been on the implementation of the new state evaluation system. He is also a member of the EDCO Collaborative principals group. Here 20 high school principals meet to share best practices.

The assistant principals along with our School Resource Officer have made presentations related to Bullying Prevention and Safety and Security in Schools. The WHS Connect and Commit (service learning) Coordinator and our social studies teachers have made presentations at national social studies conferences in integrating service learning into the regular curriculum. The WHS computer education teacher has made numerous presentations on developing mobile apps for Android devices. This is a focus of a course he teaches at school. An English teacher has made multiple presentations on his "paperless classroom." He has 30 laptops in his classroom and all student work is completed and assessed using Google Docs. Our lead teacher in the Technology Engineering Department has presented on teaching robotics. The WHS staff is very involved professionally and the district universally supports teachers pursuing professional development.

4. Engaging Families and Communities:

Winchester High School has a strong commitment to involving families and the community in contributing to student success and school improvement. This occurs on a number of levels, including parental involvement in the school and students' education; the broader Winchester community's connection with the school's endeavors; and the involvement of students and the school in the greater Winchester community's activities.

Parents of WHS students are typically quite involved in their child's education. Parents maintain contact with the school's teachers and staff through multiple forums that encourage and respond to the interests and concerns of parents. Teachers and parents are in frequent communication, especially through active,

ongoing email communication. The Principal holds monthly drop-in sessions for parents and provides a weekly email to all parents and students with information about upcoming school events. The Guidance Department publishes a monthly newsletter that provides information about the department's activities, as well as topics of general concern for the student population. The Guidance Department meets at least annually with parents of students at each grade level, as well as with incoming students and their parents, and regularly updates its website in order to provide resource information which is utilized by students and their families. Monthly "Parent Conversations" meetings, facilitated by the Clinical Counselor, are an opportunity for both education and support for all parents and guardians involved in the school in which topics of timely concern are addressed. In addition, Winchester's Parent Faculty Association and Parent-to-Parent groups are actively committed to collaboration with the school in order to aim for high levels of student success.

The school has partnered with organizations and activities in the community in order to work collaboratively toward the overall success of students and toward continued improvement of the school. In particular, the Winchester Coalition is a group of diverse community members who meet monthly in order to identify and address concerns related to the youth of Winchester. The group includes both professionals, including staff and administration from the high school, and nonprofessionals who together represent all aspects of the broad Winchester community. The Coalition has been instrumental in the regular administration of the Youth Risk Behavior Survey and its interpretation, as well as in increasing the community's awareness of and advocacy for a balanced and healthy approach toward academics. Additional collaborative efforts include the Lantern Walk, which is a community-wide event addressing the destructive aspects of stress which students and staff have planned with community members; the community's Youth Center, which facilitates youth leadership activities; and the active and involved school-based collaboration with "Connect and Commit," which promotes and facilitates service learning activities. Through the collaboration of these multidimensional groups, the community as a whole works together in order to assure and heighten student success and to aim for continued improvement and excellence of Winchester High School.

PART V - CURRICULUM AND INSTRUCTION

1. Curriculum:

The curriculum at Winchester High School (WHS) enables the mission to be fulfilled by offering students the opportunity to realize the expectations for student learning that the school has established. The curriculum is structured into 12 departments, which include Art, Computer Education, English, Foreign Language, Mathematics, Music, Social Studies, Special Education, Technology/Engineering, and Wellness (Physical Education/Health and Family and Consumer Science). Each department features a number of electives and provides students a smorgasbord of interesting educational opportunities

Courses at WHS have written curriculum documents that are closely based upon the Massachusetts Curriculum Frameworks. These curriculum documents provide the basis for content, instruction, and assessment for each course. The curricula documents are written in accordance with the Understanding by Design model (UBD) The UBD model lists each of the content standards, the specific learning standards, essential questions, and overall understanding of each unit.

WHS offers a full range of courses designed to challenge all students. This is an intellectually rigorous curriculum that provides a wide variety of experiences for the authentic application of this knowledge and these skills. The WHS <u>Student Guide and Course of Studies</u> describes in detail the full range of classes offered to the student body. Courses are offered at two academic levels; honors and college prep. In addition to the traditional academic offerings, WHS is a comprehensive high school that offers practical and applied arts in the areas of Art, Music, Computer Education, Technology/Engineering, and Wellness.

WHS has several successful examples of interdisciplinary learning including courses called Humanities and American Studies. Humanities is a team-taught, double period course that offers seniors both a chronological and thematic exploration of musical, visual, historical, and literacy works from ancient to modern times. American Studies is another team-taught, double period course with a focus on American history, literature, and music.

Department directors are responsible for curriculum and the supervision and evaluation of teachers from Grades 6-12 in the core area and K-12 in the elective areas. Here is information from each of the departments:

Art: consists of courses that develop students' creative abilities and visual communication skills. Students participate in hands-on studio art, photography lab, and computer lab activities that explore the use of a wide variety of two-dimensional and three-dimensional art materials. Through individualized and group instruction, teachers stress the importance of experimentation which is balanced by the more guided development of technical skills with specific art materials. The courses offered by the art department have been designed to sharpen students' critical and creative thinking skills and to increase students' confidence in their own creativity. Courses offered in the Art Department include Photoshop, Adobe Creative Suite 5, Computer Animation I and II, Sculpture, Studio Art I and II, Drawing and Painting, Honors Art, Senior Honors Art, Photography I and II, Honors Photography, and Digital Photography.

Computer Education: provides a project based program that strives to provide students with 21st century technology skills. Courses include Wed Design I and II, Developing Mobile Applications for iPhones, iPads, and Android devices, Game Design, and Introduction to Sports and Entertainment Marketing.

English: provides core courses for the 9th and 10th graders and an array of elective courses for 11th and 12th graders. Much more information will be provided in question 2b of Part V.

Foreign Language: offers a fully articulated sequence of French, Italian, Latin, Mandarin, and Spanish courses in compliance with the National Standards and the Massachusetts Frameworks. Emphasis in all

Foreign Language classes is on the development of the five basic language skills of listening, speaking, reading, and writing, as well as on familiarity with the culture and people of the countries where each language is used. In Latin, the focus is on reading and writing the language and oral communication is primarily in English while in the modern foreign language classes, the target language is used as appropriate for each level. In addition to the daily exposure to language and culture in the classroom, students go regularly to the departmental language lab to further practice and refine their language skills and enhance their knowledge of the culture of the language they are studying. Twenty-first Century Skills are embedded in all foreign language courses.

Mathematics: offers a four-year sequence of courses for all students, which accommodates students with varied backgrounds and aptitudes in Mathematics. Curricula for the courses are continually updated and redesigned with input from the NCTM standards, the Massachusetts Frameworks and the College Boards; the department believes that all students should be taught many skills, concepts and applications that go beyond the expectations of these standards. The goals are to lead our students into higher-level critical thinking and problem solving as well as to enable students to apply previously learned mathematical concepts and skills into new situations. More information will be provided in question 3 of Part V.

Music: includes courses in band (Concert Band and Jazz band), chorus (Concert Chorus, Chorale, Sachem Chorus, After School Chorus, Chamber Singers and the Octets), orchestra (Orchestra, Sinfonietta, and Symphony), and music theory (Song Writing and Arranging).

Science: the core program includes the three major scientific disciplines; Biology, Chemistry and Physics. The inquiry approach to learning is emphasized and experiments/ labs are a core component of each science course. A variety of teaching methods is employed in all science classes to insure maximum understanding of Science concepts.

Social Studies: has a commitment to providing a strong background in human history. As the current *Massachusetts History and Social Science Frameworks* so aptly states: "Historical time is the lens through which we see change and continuity in human affairs. History allows us to know our place in time, the first mark of educated citizens. To know ourselves and others, we compare our lives with those people in other eras and other circumstances. Ignorance of history isolates us from human realities, a mortal weakness in a democratic society, leaving us prey to mere nostalgia, or censored versions of the past spread by partisan interests...."

Technology/Engineering: offers courses designed to help students develop the knowledge, skills, and work/ethic necessary to successfully pursue further college preparation, technical careers at the post-secondary level or to help obtain employment upon graduation. Students are challenged to apply the "Design Process" as described in the Massachusetts Curriculum Frameworks for Technology/Engineering to plan, create, build, test, manage, and assess technology through individual and group hands-on activities. The Technology/Engineering courses include Architectural Computer Design, Engineering the Future, Robotics/Electromechanical Design, TV Studio and Video Production, and Wood and Cabinet Making.

Wellness: The courses offered in the Wellness department have been designed to provide students with the knowledge, skills and strategies needed to make healthy choices. Students engage in active learning to practice critical thinking, problem solving and decision making skills necessary to achieve a balance among these life components which will lead them to sustained good health and well-being.

2. Reading/English:

The English Department program is designed to improve the students' awareness of the important role that the English language and its literature play in their intellectual, personal, and career development. Essential to the overall program of studies, the English program emphasizes the development of oral and written comprehension, of critical thinking skills, and of coherence, cogency,

and fluency in the expression and communication of ideas. While the English program stresses competence in the skills of reading, writing, speaking, and listening, it also provides experiences and activities that will help students become discriminating users of print and non-print media. Literary and media works, selected for excellence in both content and style will promote humanistic attitudes, aesthetic appreciation, multicultural awareness, and critical evaluation skills. The English program encourages the development of each students individual potential through critical thinking, clear writing, articulate speech, thoughtful decision-making, intellectual risk-taking, and respect for others.

All 9th and 10th graders take the same core courses, while 11th and 12th graders select from a variety of electives. The 9th grade course exposes students to a wide range of literature and is intended to increase students' awareness of the power and variety of language, broaden their experience, and provide a foundation for the in-depth exploration of upper English courses. Careful reading of short fiction, novels, non-fiction, poetry, and drama encourages the development of analytical skills. The emphasis is on interpretation, with special attention to literary terms and concepts, theme, and figurative language. Expository writing assignments, based on the literature, stress focus, support, and specific detail. Instruction in research methods, process, and organization prepares students for writing research papers. Creative writing includes short fiction and poetry. Grammar review focuses on usage, and vocabulary units focus on recognizing and using words in context. During the first semester of 10th grade, students take Writing Laboratory, a one-semester expository writing course. The focus is on the process of writing, a focus that is reinforced by writing in all literature courses thereafter. Students write the following kinds of essays: persuasion, comparison-contrast, cause and effect, and literary analysis. Focus correction areas are thesis, support, paragraphing, sentence structure, and word choice. Peer editing, spot conferencing, and revision are important aspects of Writing Lab. Students read pieces by professional writers, using them for inspiration, for models of good writing, for strengthening critiquing skills, and for analysis. Much of the writing, editing and revision is done on wireless laptop computers. During the second semester of 10th grade, students take a semester course that focuses on American literature. In 11th and 12 grade, students choose from a variety of full year courses including Survey of British Literature, Masterpieces of World Literature, Shakespearean and Modern Drama, Advanced Placement English, Journalism and Nonfiction, Literature and Film, Thematic Literature and Composition, And College Prep English. Students may also select one semester courses including Creative Writing, Speech and Debate, and American Literature 1 and 2.

Reading and Literacy Support is offered through specialized classes in the English Department. Instruction and Support are provided in the areas of comprehension, decoding, fluency, vocabulary, and spelling. The Wilson Reading Program is offered to students who would benefit from a multi-sensory, structured, reading program. Students are referred for reading by the 8th grade Reading Specialist, their English Teacher, or the Teacher Resource Team.

3. Mathematics:

The Mathematics Department offers a four-year sequence of courses for all students, which accommodates students with varied backgrounds and aptitudes in Mathematics. Curricula for the courses are continually updated and redesigned with input from the NCTM standards, the Massachusetts Frameworks and the College Boards. The department believes, that all students should be taught many skills, concepts and applications that go beyond the expectations of these standards. The goals are to lead our students into higher-level critical thinking and problem solving as well as to enable WHS students to apply previously learned mathematical concepts and skills into new situations. The Winchester High School graduation requirement for Mathematics is two years but almost all students at WHS complete four years of math.

The department uses a variety of instructional methods, which are not only appropriate to the material being taught but also appropriate to individual learning styles. Both colleges and the business world are expecting high school students to be more technology literate. By using graphing calculators and its laptop cart, the math department addresses this demand. These technology tools are used for exploration and investigation as well as for the development and extension of mathematical topics. Technology

provides a dynamic approach to the learning of Mathematics. A graphing calculator is an integral part of all courses beyond Algebra 1 and Geometry.

Within the Mathematics Department there are many levels of study. Prerequisites and levels of study are indicated in the individual course descriptions. A major emphasis of the department has been encouraging students to pursue higher levels of mathematics. In the 2003-04 school year, approximately 30 students were enrolled in the department's 2 Advanced Placement courses- BC Calculus and AB Calculus. In the 20011-12 school year, 176 students were enrolled in the department's 4 AP courses, now including AP Statistics and AP Computer Science. In addition, 163 seniors were enrolled in one of the AP Calculus courses or Honors Calculus. For the increasing number of students who are completing BC Calculus in their junior year, the department offers a series of online college level courses including Multivariable Calculus, Multivariable Statistics, Discrete Mathematics, and Linear Algebra. For those students performing below grade level, the department has a math tutoring center, open all day for students needing extra support. In addition, the department offers a supplementary MCAS Support class and next year will offer an extra one semester algebra class for 9th graders (in addition to 9th grade geometry), providing extra support for students in algebra so they can move into Algebra 2 and Trig in the 10th grade year.

4. Additional Curriculum Area:

The Technology/Engineering Department offers a comprehensive vision for technology education and includes the study of engineering, robotics and electromechanical design, architectural computer design, woodworking and cabinet making, and video production. The WHS program builds on the highly successful technology/engineering middle school program. The high school courses are offered at both the honors and college prep levels within the same class, allowing all students to enroll in these courses but permitting some to independently take the curriculum to a higher level. The courses offered in this program are activity based, encourage cross-curricular teaching and learning, enable and encourage seeking and solving open-ended problems, and incorporate designing and making as central tenets in classes for all students. More so than any other department, Technology/Engineering Department embodies the core mission of the school: to foster:

- Critical thinking
- Clear and effective communication
- Intellectual creativity
- A sense of personal, civic, and social responsibility
- The ability to apply these essential skills and knowledge to real world situations

The department also offers a highly successful after-school competitive robotics program involving over 40 students. This program establishes teams that compete in robotics competitions across the country.

In addition, the Technology/Engineering Department offers the STEM Certificate Program. Massachusetts and the nation are experiencing a STEM pipeline problem- a shortfall of workers properly equipped with the science, technology, engineering, and math (STEM) education and skills necessary for success in an innovation economy. During the last 20 years, demand for STEM workers has grown at more than four times the rate of the overall U.S. workforce. K-12 school systems are beginning to address how to better prepare, engage, and excite a significantly higher number of students to pursue a STEM curriculum, thus priming the front end of the higher education/workforce pipeline. The STEM Certificate Program is a strategy to increase the awareness, interest, and motivation of students for STEM related careers. To receive a STEM certificate, students must complete 4 years of mathematics, 4 years of science, 4 other STEM related courses including Engineering the Future, and complete a STEM related capstone project and present their findings.

5. Instructional Methods:

The WHS faculty values and practices high quality instruction. Across the school there is evidence of teachers using a variety of instructional strategies that make connections across disciplines, personalize student instruction, encourage student self-assessment, and allow teachers to be reflective about their practice. WHS teachers understand that providing different modes of instruction in the same subject area can only help students more effectively understand concepts, ideas and skills. Instructional strategies and practice are consistent with the school's stated mission and expectations for learning. Critical thinking is encouraged in most classrooms and evident in assigned activities and student work. Clear and effective communication is evident in performance assessments and student work. Application of knowledge and skills is predominant in classrooms at WHS. Integration of technology into instruction has been a major professional development focus in the last few years. Teachers use laptops, projectors, and interactive whiteboards to engage students in learning. More teachers are encouraging students to use Web 2.0 tools to create individual products or projects. Some teachers are piloting the idea of the "flipped" classroom, making YouTube or Screencast-O-Matic videos of their presentations to view for homework so time in class can be used for discussion and independent help. In addition, students can view these videos multiple times until they understand the material. If WHS had the wireless infrastructure to support all students' bringing a laptop or electronic device to the classroom, the faculty would embrace this use of technology.

Because so many classes combine the honors and college prep curriculum levels or are unleveled, WHS teachers have always had to practice differentiated instruction. Given the diverse array of learners in classrooms with the availability of the differentiated instruction strategy, it is no longer responsible to teach as if all students learn in the same way and at the same pace. The WHS faculty tries to nourish students as individual learners. WHS teachers differentiate instruction in the following ways:

- Providing additional supports for struggling learners by providing manipulatives, visual aids, charts, outlines, and picture cues.
- Emphasizing the most important concepts and skills
- Providing very clear expectations and examples
- Providing sources of information on the same topic at different reading levels
- Having audio versions of readings or text available
- Giving exam and quizzes on the same knowledge and skills with different levels of questions
- Giving students the opportunity to answer questions verbally
- Taking exams in alternative settings and/or with extended time
- Providing students with notes rather than having students record notes
- Providing alternative video instructional sources on specific topics.

Teachers stay current with new instructional approaches by attending conferences and workshops, reading professional journals, and taking graduate courses at local universities. Department meetings and the discussions within school Professional Learning Communities (PLCs) also inform instructional practice.

6. Professional Development:

For the 2011-12 and 2012-13 school years, professional development at WHS has focused on the district's Student Learning Initiative and implementation of the state's new Educator Evaluation Model. For the Student Learning Initiative, teachers have worked in subject area Professional Learning

Communities (PLCs) to develop and revise achievement targets for the courses at WHS. The achievement targets are the student learning goals identified by staff as essential for their students. The PLCs have then used the achievement targets to develop common/interim assessments. All teachers instructing the same course will eventually analyze the results of the common/interim assessments to modify instructional strategies to meet the learning needs of students. In addition, the results of the common/interim assessment will be used to gauge the individual teacher's impact on student learning as part of the new educator evaluation model.

The goals for this year are completion and review of the achievement targets and the development and analysis of the common/interim assessments. The collaboration of the teachers is the key to WHS professional development. The conversations and consensus that emanate from this collaborative environment provide a stronger, more sustainable organizational structure. Improvement in student learning is the focus of this staff development.

Simultaneous with the districts Student Learning Initiative is the district's implementation of the new educator evaluation model. Its focus also is on the improvement of student learning as well as collaboratively developed achievement targets and common/interim assessments. Administrators and teachers have received training in the new model. As part of the model, each educator (teachers, support staff, and administrators) has developed two goals- a student learning goal and a professional practice goal. These goals can be individual or team based. Each goal has an action plan that includes the steps needed to meet each goal, the resources necessary to meet the goal, and the timeline for meeting the goal. The new evaluation model includes an assessment on the teacher's progress in meeting the two goals.

7. School Leadership:

The WHS administrative structure includes the principal, two assistant principals, and directors for each of the ten departments. Each assistant principal oversee two of the four grades in the school. The directors in the English, social studies, mathematics, science, and foreign language departments have grades 6-12 responsibility, while the directors in the music, art, wellness, computer education, and technology/engineering departments have grades K-12 responsibility. The directors also teach a reduced load of classes. The principal supervises the assistant principals while the assistant superintendent for curriculum, instruction and assessment supervises the directors. The principal holds a monthly meeting with the directors and assistant principals.

The principal, assistant principals, and directors are the instructional leaders of WHS. While managerial responsibilities can be overwhelming, the administrators try to stay focused on teaching and learning. The high school administration is guiding the effort of the Student Learning Initiative described in Part V, number 6. The administration is responsible for holding the faculty accountable in meeting the initiative's goals. In addition, the principal and assistant principals work in collaboration with the directors to evaluate the faculty. This year WHS is implementing the new educator evaluation model. The new program includes a new set of professional standards, indicators, and elements; an increased number of announced and unannounced observations; and evidence provided by the faculty that they are meeting their student learning and professional practice goals as well as the new standards. In the future, the new system will include evidence of the educator's impact on student learning and the results of student surveys on the educator's effectiveness. Administrators are spending a great deal of time learning about and implementing the new system this year.

Collaborative leadership is embraced at WHS. The principals, assistant principals, and directors work collegially with the faculty to initiate school change and improvement. Whether ideas emerge from the administration or the faculty, WHS follows the same model of change. Proposals for change are put in writing and discussed and vetted at WHS director meetings and in small groups at faculty meetings. Proposals may be discussed and further refined at multiple meetings. Consensus of the faculty and administration usually guide the final decision of a proposal. If the faculty does not reach consensus, the administration will make the final decision.

PART VII - ASSESSMENT RESULTS

STATE CRITERION-REFERENCED TESTS

Subject: Mathematics Test: MCAS Grade: 10

Edition/Publication Year: 2012 Publisher: Harcourt Educational Measurement

	2011-2012	2010-2011	2009-2010	2008-2009	2007-2008
Testing Month	May	May	May	May	May
SCHOOL SCORES					
% Proficient Plus % Advanced	98	93	95	92	91
% Advanced	81	76	78	78	70
Number of students tested	275	283	258	272	278
Percent of total students tested	99	98	98	97	99
Number of students alternatively assessed	0	3	0	1	1
Percent of students alternatively assessed	0	1	0	0	0
SUBGROUP SCORES			·		·
1. Free/Reduced-Price Meals/Socio-econ	omic Disadv	antaged Stu	dents		
% Proficient Plus % Advanced	95	79	80	84	50
% Advanced	59	53	40	46	40
Number of students tested	22	19	15	13	10
2. African American Students			<u> </u>		
% Proficient Plus % Advanced	Masked	Masked	Masked	Masked	Masked
% Advanced	Masked	Masked	Masked	Masked	Masked
Number of students tested	4	3	2	5	5
3. Hispanic or Latino Students					
% Proficient Plus % Advanced	Masked	Masked		Masked	Masked
% Advanced	Masked	Masked		Masked	Masked
Number of students tested	9	9	11	8	4
4. Special Education Students					
% Proficient Plus % Advanced	89	69	72	61	61
% Advanced	49	29	20	23	26
Number of students tested	47	52	25	39	31
5. English Language Learner Students					
% Proficient Plus % Advanced	Masked	Masked	Masked	Masked	Masked
% Advanced	Masked	Masked	Masked	Masked	Masked
Number of students tested	7	5	8	6	6
6. Asian					
% Proficient Plus % Advanced	100	100	100	100	100
% Advanced	95	88	92	81	100
Number of students tested	44	34	25	21	21

Masked indicates data were not made public because fewer than 10 students were tested. For subgroup numbers 2,3, and 5, the state does not report percentages for small sample sizes.

13MA3

STATE CRITERION-REFERENCED TESTS

Subject: Reading Grade: 10 Test: MCAS

Edition/Publication Year: 2012 Publisher: Harcourt Educational Measurement

	2011-2012	2010-2011	2009-2010	2008-2009	2007-2008
Testing Month	Mar	Mar	Mar	Mar	Mar
SCHOOL SCORES					
% Proficient Plus % Advanced	100	96	97	94	93
% Advanced	70	67	63	67	62
Number of students tested	274	286	260	274	280
Percent of total students tested	99	99	98	98	99
Number of students alternatively assessed	0	4	0	2	1
Percent of students alternatively assessed	0	1	0	1	0
SUBGROUP SCORES					
1. Free/Reduced-Price Meals/Socio-econ	omic Disadv	antaged Stu	dents		
% Proficient Plus % Advanced	96	95	87	84	80
% Advanced	32	42	27	46	30
Number of students tested	22	19	15	13	10
2. African American Students					
% Proficient Plus % Advanced	Masked	Masked	Masked	Masked	Masked
% Advanced	Masked	Masked	Masked	Masked	Masked
Number of students tested	4	3	2	4	5
3. Hispanic or Latino Students					
% Proficient Plus % Advanced	Masked	Masked		Masked	Masked
% Advanced	Masked	Masked		Masked	Masked
Number of students tested	9	9	11	8	4
4. Special Education Students					
% Proficient Plus % Advanced	95	83	81	69	57
% Advanced	41	29	8	15	12
Number of students tested	46	52	26	39	33
5. English Language Learner Students					
% Proficient Plus % Advanced	Masked	Masked	Masked	Masked	Masked
% Advanced	Masked	Masked	Masked	Masked	Masked
Number of students tested	6	5	8	5	6
6. Asian					
% Proficient Plus % Advanced	100	97	100	95	96
% Advanced	80	82	80	80	86
Number of students tested	44	34	25	20	21

Masked indicates data were not made public because fewer than 10 students were tested. For subgroup numbers 2,3, and 5, the state does not report percentages if the sample size is too small.

13MA3